ABSTRACT

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A device with a functional tip containing at least one active electrode capable of creating a controlled perforation in body tissue through the application of Radio Frequency (RF) energy is described. The position of the tip of the device can be determined in response to pressure sensed at the tip and determined by a monitor. The device is useful to remove or perforate unwanted tissue in a controlled manner in any location in the body, particularly in the atrial septum for controlled transseptal puncture. In this application, the device is introduced into the right atrium, and the functional tip is then positioned against the atrial septum. Energy is applied to create the perforation and pressure is monitored to determine if the perforation was created in a desired location. Other possible applications include the removal of plaque or thrombotic occlusions from diseased vessels.